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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/921,375	08/02/2001	Ray Whitney	01-471	3959

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PATENT, COPYRIGHT & TRADEMARK LAW GROUP  
430 WHITE POND DRIVE  
SUITE 200  
AKRON, OH 44320

EXAMINER
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NGUYEN, MY XUAN

ART UNIT	PAPER NUMBER
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2617

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/20/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/921,375	WHITNEY, RAY	
	<b>Examiner</b>	<b>Art Unit</b>	
	My X. Nguyen	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 14 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,4-6 and 8-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4-6 and 8-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Claims 1, 4-6 and 8-11 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In particular, both independent claims 1 and 10 recite "a digital wireless PC/PCS modem for communicating to a satellite and relay wireless communication system, said modem comprising..." However, in light of the Specification the claim limitations are not supported.

The claimed modem as disclosed in the Specification do support claimed elements of: a PCMCIA card type configuration of a type associated with a laptop computer unit supporting a circuit board; a modem integrated within said circuit board in communication with said PCMCIA card; and an antenna having a protective, cap and tuned to a frequency corresponding wireless system for transmitting and receiving digital signals and sending them to said circuit board to be processed; said antenna

attached to said modem using a swivel joint assembly that allows for said antenna to be rotated and aligned to provide optimum transmission and reception of digital signals unlimited with respect to a user's locale.

However, the claimed elements that are not supported by the Specification is the claimed modem comprising a swivel-based, independent micro camera rotatable 180°; a microphone for converting a transmitted sound into a sound signal; and at least three tuner cards for providing a multi-task video screen split into a plurality of frames of equal dimension, wherein each of said frames providing for a specific functional operation, task or application.

The limiting elements of a camera, microphone and at least three tuner cards are all separate from the PCMCIA card and are detailed in the Specification as being provided with the laptop unit (Applicant's Specifications Page 11 Lines 2-20, Page 12 Lines 1-3, Page 13 Lines 5-20). Figures 2 and 6 clearly show that the claimed PCMCIA modem card, camera, microphone and at least three tuner cards are separate elements and are provided with the laptop.

Claims 4- 6, 8, 9 and 11 are dependent claims depending upon independent claims 1 and 10 respectively. Due to their dependencies and in light of the above explanation, claims 4-6, 8, 9 and 11 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 4 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,915,020 (Tilford et al., hereinafter Tilford) and further in view of U.S. Patent 5,646,635 (Cockson et al., hereinafter Cockson) and U.S. Patent 6,141,062 (Hall et al., hereinafter Hall).

Applicant should note the following prior art rejection is based on Examiner's understanding that claimed elements of independent claims 1 and 10, in view of Applicant's Specification, are not for a modem comprising said elements but rather a laptop/personal computer comprising said elements.

Regarding claims 1, 4 and 10, Tilford discloses the claimed:

a PCMCIA card type configuration of a type associated with a laptop computer unit supporting a circuit board (Col. 7 Lines 45-67 & Col. 8 Lines 1-10);

a modem integrated within said circuit board in communication with said PCMCIA card (Col. 7 Lines 45-67 & Col. 8 Lines 1-10);

a swivel-based, independent micro camera rotatable 180° (Fig. 8, Element 123, Col. 3 Lines 51-54 & Col. 13 Lines 51-57);

a microphone for converting a transmitted sound into a sound signal (Fig. 8, Element 121 Col. 3 Lines 51-54 & Col. 13 Lines 51-57); and

a loudspeaker for generating an audible sound in response to reception to digital signals (Col. 3 Lines 30-34), and wherein said loudspeaker and said microphone are coupled to a microprocessor via an audio interface block (Fig. 8 Element 121 & Fig. 12 Element 204).

Additionally, Tilford discloses PCMCIA slot 79 is used to accept a PCMCIA card having an antenna (Fig. 11, Col. 7 Lines 45-49), a video signal is processed by a video decoder 74 (Fig. 7, Col. 7 Lines 18-25) and further discloses the claimed multi-task video screen split into a plurality of frames of equal dimension, wherein each of said frames providing for a specific functional operation, task or application (i.e., application programs may be run simultaneously with the display of the video image Col. 9 Lines 57-65).

What Tilford does not explicitly disclose is the claimed:

antenna having a protective cap and tuned to a frequency corresponding wireless system for transmitting and receiving digital signals and sending them to said circuit board to be processed; said antenna attached to said modem using a swivel joint assembly that allows for said antenna to be rotated and aligned to provide optimum

transmission and reception of digital signals unlimited with respect to a user's locale;  
and  
at least three tuner cards.

However, regarding the claimed antenna, Cockson does disclose the claimed antenna that has a protective cap and also a swivel knuckle (joint) that rotates the antenna (Figs. 10-15, Col. 5, Lines 49-53).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to implement the feature with the combined system of Tilford and Hall because the said features of an antenna are old and well known in the prior art. Because the design of using a protective cap and a swivel joint is one of many variations of designs for antennas and is very well known, it would be beneficial if this particular design were implemented to the combined system of Tilford and Hall. The motivation to implement said antenna is to provide an efficient means to dynamically obtain a best signal and avoid damage to the antenna.

Regarding the claimed at least three tuner cards, Hall does disclose the claimed at least three tuner cards (i.e., video decoder, Fig. 1 Elements 220, 240 & 260, Col. 2 Lines 62-67).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to implement the feature of Hall with the combined system of Tilford and Cockson because the feature of using three tuner cards is old and well known in

the prior art. The motivation to make the combination is to beneficially allow a user to access a plurality of data from multiple sources.

3. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tilford, Cockson and Hall as applied to claim 1 above, and further in view of U.S. Patent 5,457,601 (Georgopoulos et al., hereinafter Georgopoulos).

Regarding claim 5, the combination of Tilford, Cockson and Hall has been discussed above. What the combination does not explicitly disclose is the claimed modem includes an enclosure top held in place by a series of fastening means, and wherein said enclosure top is removable so as to allow for repair or adjustment of any internal electronic components located inside said modem.

However, Georgopoulos does disclose the claimed enclosure top held in place by a series of fastening means, and wherein said enclosure top is removable so as to allow for repair or adjustment of any internal electronic components located inside said modem (Fig. 3, Elements 301, 302, 303 & 304).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to implement the feature of Georgopoulos with the combined system of Tilford, Cockson and Hall because it is old and well known in the prior art. The design of the frame of a PCMCIA card is user dependent, but since one type of configuration is to use front locks to keep the enclosure together, it would be beneficial to unlock the enclosure to access the components. The motivation to implement the



feature of a removable enclosure is to easily disassemble the PCMCIA card to fix or maintain the components therein.

Claim 6 is met by the combination of Tilford, Cockson, Hall and Georgopulos, wherein Tilford discloses the claimed modem has an electrical connector comprising a series of electrical contacts, wherein said electrical connector is of an arrangement as defined by computer industry for PCMCIA connections (Col. 8 Lines 1-10). It is inherent that a standard PCMCIA card have the claimed electrical connector comprising a series of electrical contacts. Furthermore, Georgopulos clearly discloses the claimed electrical connector comprising a series of electrical contacts (Figs. 1-3).

4. Claims 8, 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tilford, Cockson and Hall as applied to claims 1 and 10 above, and further in view of U.S. Patent 6,724,403 B1 (Santoro et al., hereinafter Santoro).

Regarding claims 8 and 11, the combination of Tilford, Cockson and Hall has been discussed above. What the combination does not explicitly disclose is a [laptop/personal computer] comprising nine tuner cards for providing a multi-task video screen split into nine frames of equal dimension. However, Santoro does disclose information enters the system through any one of ports 108-1 through 108-N (Col. 7 Lines 3-4). Furthermore, Santoro et al. discloses a screen split into nine equal partitions in Figure 1.

It would have been obvious to one with ordinary skill in the art at the time the invention was made to implement the features of Santoro with the combined system of Tilford, Cockson and Hall because the feature of using nine tuner cards to provide a multi-task video screen split is old and well known in the prior art. The motivation to make the combination is to provide the user an efficient means to view all transmitted data in a compact manner to distinguish the differences of the incoming/outgoing data.

Claim 9 is met by the combination of Tilford, Cockson, Hall and Santoro, wherein Tilford discloses the claimed functional operations and transmissions include video, voice, text, fax, and viewing of satellite television broadcast (Col. 7 Lines 40-42 & Col. 10 Lines 47-50) and wherein said functional operations and transmissions being simultaneously displayed via said multi-task video screen (Col. 9 Lines 57-65).

4. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,428,671 (Dykes et al., hereinafter Dykes) and further in view of U.S. Patent 6,917,646 B2 (Chianale et al., hereinafter Chianale).

Regarding claims 12 and 13, Dykes discloses the claimed bidirectional connection between the computer and the UART including a parallel bus, a serial receive bus, a serial transmit bus, a microcontroller, a second parallel bus, a second serial transmit bus, a second serial receive bus, a digital signal processing (DSP) support module, wherein the microcontroller inherently aligns data in the proper

configuration to be processed by voice, data, fax, and a video processor, and the DSP inherently performs all necessary operations on the data, including handshaking verification, through a series of built in algorithms in order to communicate to the modem (Fig. 2, Col. 6, Lines 51 to Col. 8, Line 63).

What Dykes does not explicitly disclose is the claimed digital signals are passed through a series of line amplifiers, said series of line amplifiers and a network switching element having an input buffer coupled therebetween, wherein said network switching element receives input from said PC/PCS modem, said switching network element having frequency/feedback along with channel/screen selection function flowing from said switching network bi-directionally to a multi-tuner where data is passed from said multi-tuner module to a microprocessor.

However, Chianale does disclose the use of multiple amplifiers interposed between a modem output and a transmit line and between the modem input and receive line (Fig. 1, Col. 2, Lines 44-52, Col. 3, Lines 32-34). Chianale further discloses the implementation of a switch in conjunction with the modem and line amplifiers (Fig. 2 Col. 4, Lines 8-11).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to implement the features Chianale with the system of Dykes because the features are old and well known in the prior art. The motivation to implement the said features is to provide an efficient means to transmitting and receiving the data from the wireless system to the wireless PCMCIA modem.

***Response to Arguments***

5. Applicant's arguments with respect to claims 1, 4-6 and 8-13 have been considered but are moot in view of the new ground(s) of rejection.

6. Applicant should note:

Claims 1, 4 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,915,020 (Tilford et al., hereinafter Tilford) and further in view of U.S. Patent 5,646,635 (Cockson et al., hereinafter Cockson) and U.S. Patent 6,141,062 (Hall et al., hereinafter Hall);

Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tilford, Cockson and Hall as applied to claim 1 above, and further in view of U.S. Patent 5,457,601 (Georgopoulos et al., hereinafter Georgopoulos);

Claims 8, 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tilford, Cockson and Hall as applied to claims 1 and 10 above, and further in view of U.S. Patent 6,724,403 B1 (Santoro et al., hereinafter Santoro); and

Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,428,671 (Dykes et al., hereinafter Dykes) and further in view of U.S. Patent 6,917,646 B2 (Chianale et al., hereinafter Chianale).

Details of the rejection of claims 1, 4-6 and 8-13 are found above in the current Office Action dated 03/13/2007.

7. In response to Applicant's arguments that "... Santoro is not available as a reference because the present Application perfected an earlier priority date as a Continuation-in-Part" and "... Chianale is not available as a reference because the present Application perfected an earlier priority date as a Continuation-in-Part" (Applicant's Remarks Page 15), Applicant should note the priority date of the Continuation-in-Part (Application 09/273,482 with the filing date of 03/22/1999) applies only to subject matter of Application 09/273,482. With respect to the Continuation-in-Part, new matter added into the current application (Application 09/921,375 with the filing date of 08/02/2001) does not inherit the same priority date and therefore references disclosing claimed elements correlating with new matter considered before the filing date of 08/02/2001 are considered prior art.

In particular, the claimed elements rejected with the prior art of Santoro and Chianale respectively correlates with the new matter of the current application, which has the filing date of 08/02/2001, whereas the remaining claim elements that are rejected under Tilford, Cockson and Hall and Dykes respectively correlates with subject matter that inherited the priority date of 03/22/1999.

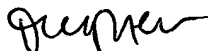
**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to My X. Nguyen whose telephone number is (571) 272-2835. The examiner can normally be reached on Monday through Friday at 8:00AM to 4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duc Nguyen can be reached on (571) 272-7503. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

M.X.N.  
03/13/2007

  
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